



## Got Air?

### Hidden Toxins in Tobacco Smoke Exposure

**Wellness Coordinator Training**  
**April 10, 2014**

**Susan L. Morrison, M.Ed.**  
**NH BSHS, Tobacco Prevention & Control Program**

## Tobacco Facts...

- ▶ More deaths are caused each year by tobacco use than by all deaths from the following combine
  - HIV
  - Illegal Drug Use
  - Alcohol Use
  - Motor Vehicle Injuries
  - Suicides
  - Murders
- ▶ Cigarette smoking causes about 1 of every 5 deaths in the United States each year
  - 393,600 deaths annually
  - 49,400 deaths annually from secondhand smoke exposure

**Combine this is equivalent to 3 jumbo jets crashing each day for a year!**

## 599 of the 4,000+ Chemicals Found in Cigarettes<sup>1</sup>

1. Tobacco Industry releases to EPA (1994)

## What's In A Cigarette?

- Acetone (nail polish remover)
- Ammonia (floor cleaner)
- Arsenic (poison)
- Butane (cigarette lighter fluid)
- Cadmium (rechargeable batteries)
- Carbon Monoxide (car exhaust)
- DDT (insecticide)
- Formaldehyde (preserver)
- Hydrogen cyanide (gas chamber)
- Naphthalene (mothballs)
- Hexamine (barbecue lighter)

## Research Shows...

- ▶ Surgeon General's Reports
- ▶ New England Journal of Medicine
- ▶ American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE)
- ▶ U.S. Department of Housing and Urban Development (HUD)

It's about the smoke **NOT THE SMOKER!**

## Primary Smoke

- ▶ First-Hand Smoke, or main-stream smoke
  - The smoke inhaled into the lungs while smoking
  - Recognized as harmful in 1950 (Doll and Hill), Surgeon General Report of 1964
  - Highly toxic, and is inhaled in high doses directly into lungs

## Second-Hand Smoke

- ▶ Second-Hand Tobacco Smoke, or "passive smoke", or "environmental tobacco smoke"
  - The smoke exhaled from smoking or from the burning tip of a cigarette (side stream smoke - SSS) SSS represents ~85% of SHS
  - SHS has the same cancer-causing substances as primary smoke

## Third-Hand Smoke or Particulate Matter

- ▶ The "legacy" of SHS: the contamination that remains in a room/car that persists after the smoke is gone
- ▶ Exposure occurs via **inhalation** of gases and re-suspended particles, **dermal absorption** from contact, and **ingestion** of dust

"Breathing air in a room today where people smoked yesterday can harm your health"



## Tobacco Smoke – No Limits

Tobacco smoke can move along air ducts, through cracks in the walls and floors, through elevator shafts, and along plumbing and electrical lines to affect units/rooms on other floors.

### Bacon Analogy



## Tobacco Smoke/Particulate Matter

- Residue and stains on walls, curtains, cabinets, blinds, appliances and fixtures
- Odor in carpets, curtains and walls
- Burn damage to tiles, carpets, curtains, countertops and bathtubs



## No One Should Have to Live Like This...



DISEASES CAUSED BY SMOKING		DISEASES CAUSED BY SECOND-HAND SMOKE	
CANCERS	CHRONIC DISEASES	CHILDREN	ADULTS
Lung	Lung	Acute bronchitis	Lung
Oral cavity	Oral cavity	Respiratory infections	Heart disease
Esophagus	Esophagus	Impaired lung function	Stroke
Stomach	Stomach	Childhood asthma	Chronic heart disease
Bladder	Bladder	Childhood leukemia	Alzheimer's disease
Pancreas	Pancreas	Childhood cancer	Chronic obstructive pulmonary disease (COPD)
Prostate	Prostate	Childhood cancer	Chronic obstructive pulmonary disease (COPD)
Colon	Colon	Childhood cancer	Chronic obstructive pulmonary disease (COPD)
Rectum	Rectum	Childhood cancer	Chronic obstructive pulmonary disease (COPD)
Uterine cervix	Uterine cervix	Childhood cancer	Chronic obstructive pulmonary disease (COPD)
Bladder	Bladder	Childhood cancer	Chronic obstructive pulmonary disease (COPD)

## The Life Cycle Effects of Smoking



## Smoke Free NH Law

- NH Law – 126K
  - Public (K-12) Schools, Grounds, Fields – 24/7
- NH Law – 155 (Indoor Smoking Act)
  - Licensed Child Day Care Centers, during hours of operation
  - Any place of public access (buildings)
  - Hospitals
  - Restaurant & Bars
  - Social, fraternal, or religious organizations when open to the general public.
  - Worksites



## Smoke Free Voluntary Policies

No NH smoke free law on outdoor air!

- Worksites
  - Campus, Vehicles or Designated Areas
- Multi-Unit Housing
  - HUD
- Parks & Beaches
  - Designated Areas
- Colleges/Universities



## NH DHHS Tobacco Policy

- Tobacco products including but not limited to cigarettes, cigars, pipes and smokeless tobacco, is prohibited inside all DHHS facilities or state owned vehicles.
- Tobacco products at prohibited in private owned vehicles used by employees on state business.
- Tobacco products are allowed only in designated areas outside any facility and use receptacles provided.

<http://intranet/policies>







**NH  
Tobacco  
Helpline**

- 1-800-QUIT-NOW
- [www.TryToStopNH.org](http://www.TryToStopNH.org)
- Text CALLME  
to 22122

Thinking about  
quitting tobacco?  
Try to Stop.  
We can help.

**Free and Confidential**

The NH Tobacco Helpline is  
a free, confidential, toll-free  
service that provides  
information, support, and  
resources to help you quit.

**Also, Remember:**  
Tobacco Helpline  
Try to Stop, we can help.  
1-800-QUIT-NOW  
TryToStopNH.org

**Contact:**

Susan Morrison, M.Ed.  
Health Promotion Advisor  
NH Tobacco Prevention & Control Program  
[Susan.L.Morrison@dhhs.state.nh.us](mailto:Susan.L.Morrison@dhhs.state.nh.us)  
603-271-6684

[www.TryToStopNH.org](http://www.TryToStopNH.org)


